



# **Bird Flu - What's New**

**LTC Wayne Hachey DO, MPH**

**Director Deployment Medicine and  
Surveillance**

**Office of the Assistant secretary of Defense  
(Health Affairs)**

**Force Health Protection & Readiness**

**AFEB 8 March 2006**

Reuters

# Avian Disease

## Countries with confirmed avian disease

- **China**
- **Viet Nam**
- **Thailand**
- **Indonesia**
- **Cambodia**
- **Iraq**
- **Russia**
- **Croatia**
- **Romania**
- **Turkey**
- **India**
- **Malaysia**
- **Cyprus**
- **Azerbaijan**
- **Hungary**
- **Slovakia**
- **Georgia**
- **Iran**
- **Azerbaijan**
- **Bulgaria**
- **Italy**
- **Greece**
- **Egypt**
- **Saudi Arabia**
- **Austria**
- **Slovenia**
- **Nigeria**
- **France**
- **Niger**
- **Bosnia-Herzegovina**
- **Japan**
- **Korea**
- **West Bank**

# Is There A Pandemic?





So Far: Only if you are a  
bird



# Avian Influenza (H5N1)

## Human Disease

- 2003- Last week 194 total cases with 95 deaths
  - Human disease in China, Indonesia, Viet Nam, Thailand, Cambodia, Turkey, Iraq.
- No confirmed human-to-human transmission
- All recent cases associated with intimate contact with diseased birds

# H5N1

- Human infections have generally been associated with massive doses of virus
  - Mortality associated with bacterial and/or viral pneumonias, cytokine storm and coagulopathy.
  - Paucity of postmortem data
- H5N1 spreading out of SE Asia by migrating birds and domestic bird traffic.
  - Legal & Illegal domestic bird traffic the primary route but spread to Europe most likely facilitated via bird migration



# Containment Problems

- Most countries lack comprehensive surveillance or response plans
  - Lack short, intermediate or long term plans or needs assessment
  - Poor coordination between Ministries of Agriculture and Health result in inability to assess true capabilities and needs

# Containment Problems

- Donor coordination needs improvement
  - Multiple site evaluations hinder host nation response
  - Improved communication between donors needed to coordinate relief measures
- FAO
  - Lacks capacity to provide rapid response and hands on assistance and training



# Recent Experience

- Turkey- exception to the region
  - Excellent response
  - Transparency
  - Will serve as a model for the region
  - Looking ahead to control measures after repopulation of domestic poultry population
  - Working with WHO & World Bank to change backyard poultry practices to increase biosecurity

# RESPONSE



NATIONAL STRATEGY FOR  
PANDEMIC  
INFLUENZA



HOMELAND SECURITY COUNCIL

NOVEMBER 2005

# DoD ACTIVITIES



# Integration

- DoD has been an active partner in USG pandemic planning efforts at multiple levels
- DoD specifically included in National Pandemic Strategy
- DoD vested throughout the National Pandemic Plan
  - 29 specific tasks with DoD as lead or supporting
- Development of DoD Pandemic Plan underway due out March 31
  - Medical annex released and reviewed by AFEB

# DoD Policy Guidance

- DoD Pandemic Influenza Policy Guidance (Health Affairs)
  - General guidance
  - Clinical guidelines
  - PI vaccine guidelines
  - Containment measures



# Tamiflu Release Guidance

- OASD (HA) – release authority
  - Release is contingent of Phase 6 declaration
  - Working issues of potential forward deployment of some of the stockpile to facilitate timely delivery
- Priority groups:
  - Hospitalized with PI
  - Preserve operational effectiveness
  - Current supply inadequate to treat all beneficiaries

# Antivirals



- Tamiflu
  - Pre-positioned in EUCOM (CENTCOM), PACOM AND CONUS
  - No pediatric formulations – pediatric compounding instructions now available
  - Anecdotal and animal data demonstrates efficacy and effectiveness for treatment of current H5N1
  - Resistance documented for Type A influenza
    - 4% adults, up to 20% pediatrics
    - Resistant mutation results in virus that is either incapable of or has decreased infectivity
  - Considering increasing stockpile

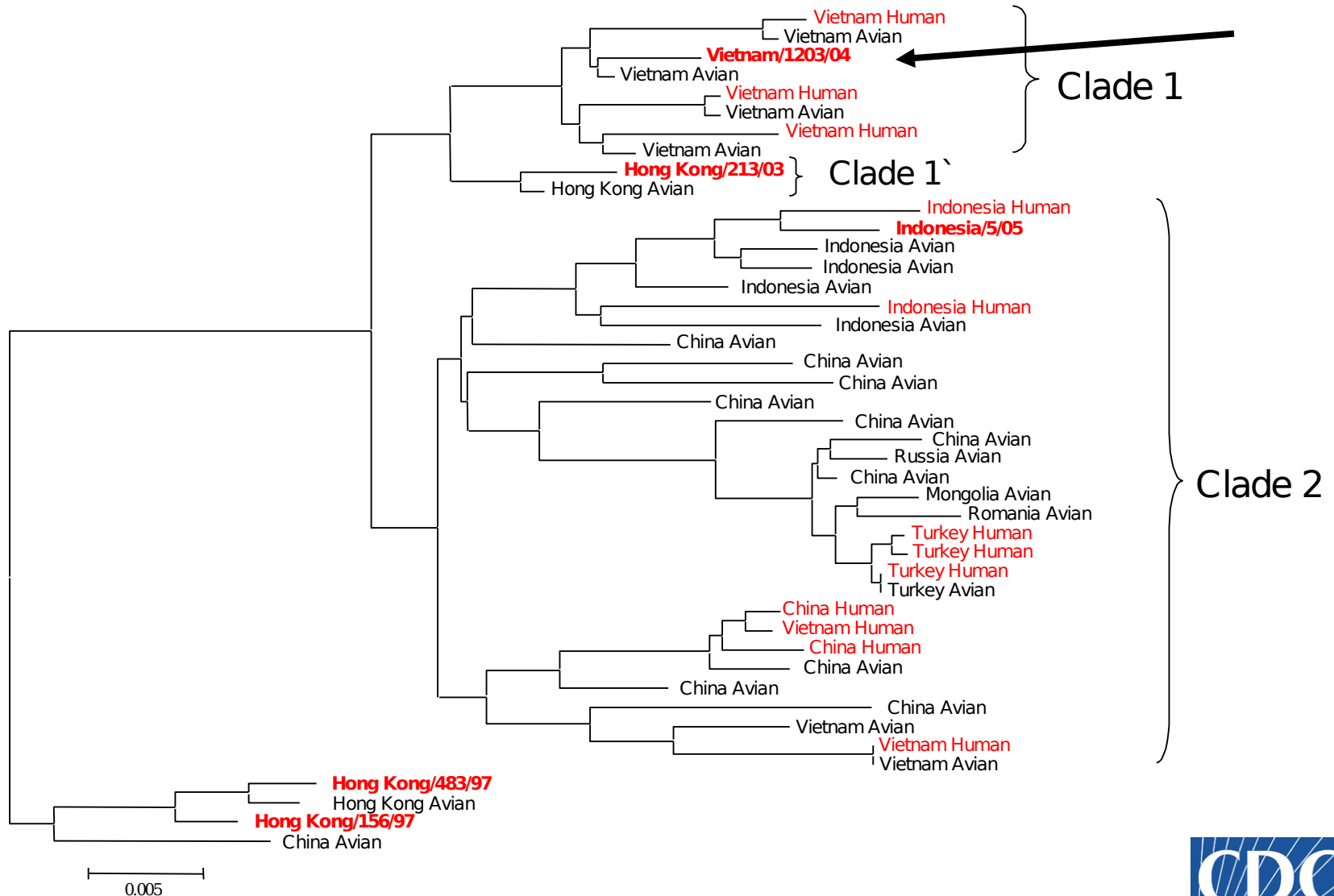
# Antivirals

- Relenza
  - Plan to purchase amount to represent 10% of total antiviral supply
  - May result in less or no resistance but has not been used to date for H5N1
  - Limited per FDA to treatment only
  - Contraindicated in those with history of reactive airway disease
  - Requires education/psychomotor skills

# Vaccine

- DoD purchased 2.667 Million doses of Avian influenza (H5N1) vaccine
  - Vaccine is based on 2004 Vietnamese clade
  - No cross reactivity to Indonesian Clade (Clade 2)
  - Will be potentially available Spring 2006
    - Based on 90ug dose requirement
    - Dosage may be reduced pending adjuvant and other antigen sparing strategies
    - Currently in bulk storage (6 week fill requirement)

## Evolutionary Relationships Among Influenza A (H5N1) Hemagglutinin (HA1) Genes



# Surveillance

- Joint Health Surveillance Center
  - Enhance DoD global situational awareness
  - Standardize collection, reporting and analysis of information
  - Approved by the Force Health Protection Council



# Communication

- Trifold Information Sheet
  - Target: Beneficiaries during Phase 5 & 6
  - Non Pharmacologic measures
  - Social distancing
  - Hand Washing
  - Mask use
  - Infection control measures
- HA Avian flu website  
[http:// www.deploymentlink.osd.mil](http://www.deploymentlink.osd.mil)
- -DoD readiness watch board  
<https://fhp.osd.mil/aiWatchboard/index.html>.

# Watch board

Provides comprehensive AI situational awareness

- Current disease status
- Countermeasure status
  - Vaccine, Antivirals, Antibiotics, PPE, Ventilators
- Planning status
  - Status of current planning guidance
  - Provides reference to pertinent documents
- Up to date clinical guidelines for providers, labs, etc...

# In development

- Prepandemic Tamiflu guidance
- Tamiflu logistics during pandemic phase
- Entry and exit screening
- Clinical tracking tools
- Clinical practice guidelines

?

